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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,479	10/11/2001	Yoko Saino	1232-4778	9757

27123 7590 03/31/2006

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EXAMINER

KOROBV, VITALI A

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/975,479	Applicant(s) SAINO ET AL.	
	Examiner Vitali Korobov	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This Office Action is in response to the amendment filed on 01/25/2006.

Claims 1-19 are pending in this Office Action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 1-4, 9,10-13, 18 and 19 above are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 6,862,594 to Saulpaugh et al., hereinafter Saulpaugh, in view of U.S. Patent 6,426,945 to Sengodan (hereinafter Sengodan).

With respect to Claim 1, Saulpaugh teaches a communication terminal connected to, via a network, a service provider and to a look-up service that registers service objects defining services of the service provider, where the communication terminal uses the services of the service provider by using the service objects, the communication terminal comprising: look-up service search means for searching the look-up service in the network (Saulpaugh, col. 2, lines 55-58).

Saulpaugh does not explicitly teach the determining means for determining whether said look-up service means can search the look-up service.

However, Sengodan, in analogous art, directed to a method and an apparatus for providing resource discovery using multicast scope, teaches the determining means for determining whether said look-up service means can search the look-up service (Sengodan, col. 3, lines 55 – 62 – alternative action when search request receives no response, col. 6, lines 10 – 15 – feedback mechanism to assist in determination what the next step should be).

Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate the teachings of Sengodan into the teachings of Saulpaugh in order to provide clients with an efficient way of discovering network resources when dynamic resource discovery is warranted (Sengodan, col. 3, lines 35-38).

Modified in the above described manner Saulpaugh teaches first acquisition means for acquiring, if said determining means determines that said look-up service search means can search the look-up service, a desired service object transmitted from

the searched look-up service by checking whether the desired service object is registered in the searched look-up service (Saulpaugh, col. 2, lines 62-67 and col. 3, lines 1-5); transmission request notification means for issuing, if said determining means determines that said look-up service search means cannot search the look-up service (Sengodan, col. 3, lines 55 – 62 – alternative action when search request receives no response), a transmission request notification to the service provider in the network via the network in order to request the service provider to transmit a service object (Saulpaugh, Col. 7, lines 46-62. Clients issue service discovery requests. Service providers respond to search requests from client with a service object ("complete advertisement" in Saulpaugh) that allows clients to use the service); and second acquisition means for acquiring a desired service object transmitted from the service provider without involvement of the look-up service, the service object being transmitted from the service provider responsive to the transmission request notification issued by said transmission request notification means (Saulpaugh, col. 7, lines, lines 49 - 55. See also Sengodan, Fig. 2, item 252, col. 6, lines 19 – 27 – unicast transmission from service to client (Discoveree to Discoverer) without involvement of the look-up service).

With respect to Claim 2, modified Saulpaugh teaches all the limitations of claim 1 and further teaches a communication terminal according to claim 1, wherein the service provider responds to a multicast notification (Saulpaugh, col. 35, lines 32-43, and Sengodan, column 6, lines 6 – 8) and transmits a service object of the service provider to a transmission originating site of the multicast notification in order to register the service object in the transmission originating site. (Saulpaugh, col. 35, lines 35-43 and

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Sengodan, Fig. 2, item 252, col. 6, lines 19 – 27 – unicast transmission from service to client).

With respect to Claim 3, modified Saulpaugh teaches a communication terminal according to claim 2, wherein the transmission request notification by said transmission request notification means is performed by issuing the multicast notification to the network. (Saulpaugh, col. 35, lines 32-43).

With respect to Claim 4, modified Saulpaugh teaches a communication terminal according to claim 2, wherein the look-up service issues the multi cast notification to the network, (Saulpaugh, col. 35, lines 28-32) and registers the service object in response to a request from the service provider responding to the multi cast notification (Saulpaugh, col. 35, lines 31-32 - recording of multicasted service announcements by the listener agent, which in Saulpaugh is analogous to a look-up service).

Claims 9, 18 and 19 are rejected in view of the above rejection of Claim 1. In the computer network art, a computer system product is essentially a computer program product (software), said program residing on a storage medium, and can be loaded into a general purpose computer to convert it into a specific machine that performs the steps of a method to be performed by the loaded program product and/or software. Claim 9 is essentially the same as Claim 1, except that it sets forth the claimed invention as a system rather than an apparatus as recited in Claim 1. Claim 18 is essentially the same as Claim 1, except that it sets forth the claimed invention as a storage medium rather than an apparatus as recited in Claim 1. Claim 19 is essentially the same as Claim 1, except that it sets forth the claimed invention as a computer readable program rather

than an apparatus as recited in Claim 1. Therefore, Claims 9, 18 and 19 are rejected under the same rationale given to Claim 1 above.

Claims 10 - 13 are rejected in view of the above rejection of Claims 1 - 4 as differing from Claims 1 - 4 only in statutory category. Claims 10 - 13 are essentially the same as claims 1 - 4, except that they set forth the invention as a method rather than an apparatus.

4. Claim 5 – 8 and 14 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over modified Saulpaugh in view of U.S. Patent 6,708,171 by Waldo et al. (Waldo).

With respect to Claim 5, modified Saulpaugh teaches a communication terminal according to claim 3, wherein another client is connected to the network, and responds to the multicast notification to request a transmission site of the multicast notification to search a desired service (Saulpaugh, Fig. 18 shows multiple clients and services connected to the network. Fig. 7, item 122, further shows that clients and services may be co-located and therefore, clients may respond to the multicast notification to request a transmission site of the multicast notification to search a desired service).

Modified Saulpaugh fails to explicitly teach said terminal wherein the communication terminal further comprises rejection means for rejecting a service search request from the other client. The Applicant states that the conditions relevant to claim 5 arise in the system “erroneously” (Specification, page 9, line 22). It is noted that one of ordinary skills in the art would have known that the error-handling procedures are inherently present in any operable system related to computer network art.

Further, Waldo teaches the invocation of error-handling exception handlers to perform selected error recovery operations in cases where an error condition arises with respect to locating an appropriate stub. Stubs taught by Waldo are analogous to service agents as taught by the instant application. (Figure 4 of Waldo). Service items taught by Waldo are analogous to service objects as taught by the instant application. (Compare the definition of a “service object” on p. 7, line 25 – 27 and Figure 4 of Waldo). Therefore, Waldo, broadly interpreted, teaches said communication terminal wherein the communication terminal further comprises rejection means for rejecting a service search request from the other client. (Waldo, col. 13, lines 38 – 42).

Modified Saulpaugh and Waldo are analogous art because they are both related to clients obtaining and using services of service providers on a network. Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to further modify Saulpaugh by employing exception handlers as taught by Waldo in order to perform error recovery operations related to erroneous service search requests by clients. A person of ordinary skills in the art would be motivated to incorporate Waldo into Saulpaugh because this incorporation would make the system more efficient by reducing run-time errors, while loading the programs dynamically. (See Waldo, Col. 3, lines 32 – 36).

With respect to Claim 6, modified Saulpaugh teaches a communication terminal according to claim 1, wherein said second acquisition means includes service object reception means for receiving a service object transmitted from the service provider without involvement of the look-up service (Saulpaugh, col. 35, lines 28-32) and filtering

means for acquiring a desired service object by selecting from service objects received by said service object reception means (Saulpaugh, col. 8, lines 38-43 - client select a service from a plurality of services that matched the search criteria. See also Waldo, col. 16, lines 33 – 36 - wherein the limitation of filtering is met by performing a match on stored service attributes).

With respect to Claim 7, modified Saulpaugh teaches a communication terminal according to claim 6, wherein said filtering means deletes a service object other than the desired service object, among the service objects received by said service object reception means. (Waldo, col. 15, lines 38 – 39; col. 16, lines 33 – 36; Col. 16, lines 48 – 50

With respect to Claim 8, modified Saulpaugh teaches a communication terminal according to claim 1, wherein the service object includes an agent object which is program codes used for using each service of the service provider by the communication terminal, and attribute information of the service (Saulpaugh, col. 2, lines 62-67 and col. 3, lines 1-5. See also Waldo, Figure 4).

Claims 14 - 17 are rejected in view of the above rejection of Claims 5 - 8 as differing from Claims 5 - 8 only in statutory category. Claims 14 – 17 are essentially the same as Claims 5 – 8, except that they set forth the invention as a method rather than an apparatus.

5. **Examiner's note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part

of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Response to Arguments

6. Applicant's arguments filed 01/25/2006 have been fully considered but they are not persuasive.

The Applicants argue – "... ***there is no communication terminal in Saulpaugh connected to both a service provider and a look up service as specifically recited in the pending claims.***"

The Examiner respectfully disagrees. This feature is not found in the claimed limitations and is recited only in a preamble of the claims, which do not carry a patentable weight. However, even if this feature was properly claimed, it is clearly taught by Saulpaugh. In col. 36, lines 52-59 Saulpaugh teaches that one way for a client to locate a service is to use a look-up service. Saulpaugh specifically states: "An example of such a service is the space look-up service described in conjunction with FIG. 4." (*Emphasis supplied by the Examiner*). A client would not be able to utilize a look-up service without his terminal being connected to such look-up service. Saulpaugh also teaches that a client may obtain a service directly from a service provider (See col. 7, lines 46-55), which a client would be unable without his terminal being connected to such service provider. Therefore, Saulpaugh teaches a communication terminal connected to both a service provider and a look up service.

The Applicants further argue – “... ***Sengodan fails to show or suggest that the second level multicasting is directed to a specific service provider requesting a desired service object as required by the present invention.***”

The Examiner respectfully disagrees and refers the Applicants to Col. 7, lines 46-55, where Saulpaugh teaches that client may contact and receive response from service providers either through a listener agent or directly from a service provider. Sengodan was not cited in the previous Office Action in relation to the quoted limitation.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vitali Korobov whose telephone number is 571-272-7506. The examiner can normally be reached on Mon-Friday 8a.m. - 4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571)272-4006. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vitali Korobov
Examiner
Art Unit 2155

VAK
03/29/2006


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